

CLAIMS

1. An assembly for connecting a cable to an externally threaded
2 connecting port, the connecting assembly comprising:

4 a tubular fitting having a central axis and axially spaced first and
second ends,

6 the first end adapted to receive a cable,

8 the second end adapted to engage an externally threaded
connecting port to secure the connecting assembly to the externally threaded
connecting port,

10 the connecting assembly comprising a plurality of fingers
projecting generally in a first axial direction,

12 a first finger in the plurality of fingers having an axial length
between axially spaced connected and free ends and a prong projecting
generally oppositely to the first axial direction from a first axial location on the
14 first finger; and

16 a locking member that is movable axially relative to the first finger
between first and second positions,

18 the locking member having a surface that cooperates with a
surface on the first finger to produce a bias force on the first finger radially
inwardly relative to the central axis as the locking member is moved from the
20 first position into the second position,

22 the bias force produced on the first finger between the first
location and the connected end of the first finger .

2 2. The assembly for connecting a cable to an externally threaded
connecting port according to claim 1 wherein the prong is substantially straight
and projects in a line that is non-parallel to the central axis.

2 3. The assembly for connecting a cable to an externally threaded
connecting port according to claim 1 wherein the first finger is folded at the free
end to define the prong.

2 4. The assembly for connecting a cable to an externally threaded
connecting port according to claim 1 wherein the first axial location is at the
free end of the first finger.

5. The assembly for connecting a cable to an externally threaded
2 connecting port according to claim 1 wherein there is a sleeve assembly at the
first end of the tubular fitting for receiving a cable and the locking member
4 abuts to the sleeve assembly with the locking member in the first position so as
to prevent movement of the locking member from the second position to past
6 the first position.

6. The assembly for connecting a cable to an externally threaded
2 connecting port according to claim 5 wherein the locking member has a radially
inwardly projecting bead that abuts to the sleeve assembly with the locking
4 member in the first position.

7. The assembly for connecting a cable to an externally threaded
2 connecting port according to claim 6 wherein the locking member surrounds a
portion of the sleeve assembly.

8. The assembly for connecting a cable to an externally threaded
2 connecting port according to claim 5 wherein the locking member surface has
an annular shape with a diameter that changes along an axial extent thereof.

9. The assembly for connecting a cable to an externally threaded
2 connecting port according to claim 5 wherein the locking member has a
cylindrical shape that extends continuously around the plurality of fingers.

10. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 5 wherein the locking member is
made from a plastic material.

11. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 1 wherein the prong projects in a
line and terminates at a free edge which is substantially straight and extends
4 transversely to the line at which the prong projects.

12. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 1 wherein the prong terminates at
a pointed free edge.

13. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 1 wherein the fingers in the
plurality of fingers have substantially the same configuration as the first finger.

14. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 1 wherein the prong projects in a
line and is flexible relative to the first finger to change the orientation of the line
4 relative to the first finger.

15. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 1 wherein the prong resides
radially inside of the first finger.

16. An assembly for connecting a cable to an externally threaded
2 connecting port, the connecting assembly comprising:
4 a tubular fitting having a central axis and axially spaced first and
second ends,
the first end adapted to receive a cable,

6 the second end adapted to engage an externally threaded
connecting port to secure the connecting assembly to the externally threaded
8 connecting port,

the connecting assembly comprising a plurality of fingers
10 projecting generally in a first axial direction,

the locking member producing a bias force on the first finger that
18 moves at least a part of the first finger radially inwardly relative to the central
axis as the locking member is moved from the first position into the second
20 position.

wherein the prong projects in a line and is flexible relative to the first finger to change the orientation of the line relative to the first finger.

17. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 16 wherein the first finger is folded
at the free end to define the prong.

18. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 16 wherein the first axial location
is at the free end of the first finger.

19. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 16 wherein the bias force is
produced on the first finger between the first location and the connected end of
4 the first finger.

20. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 16 wherein the locking member
has an annular shape and is movable axially between the first and second
4 positions.

21. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 16 wherein the fingers in the
plurality of fingers have substantially the same configuration as the first finger.

22. The assembly for connecting a cable to an externally
2 threaded connecting port according to claim 16 wherein the prong resides
radially inside of the first finger.

23. In combination:

2 a) an externally threaded connecting port having threads with an
external diameter,

4 the threads further having axially oppositely facing surfaces; and

6 b) an assembly for connecting a cable to the externally threaded
connecting port, the connecting assembly comprising:

8 a tubular fitting having a central axis and axially spaced first and
second ends,

the first end adapted to receive a cable,

10 the second end engaging the externally threaded connecting port,

12 the connecting assembly comprising a plurality of fingers
projecting generally in a first axial direction,

14 a first finger in the plurality of fingers having an axial length
between axially spaced connected and free ends and a prong projecting
generally oppositely to the first axial direction from a first axial location on the
16 first finger; and

18 a locking member that is movable axially relative to the first finger
between first and second positions,

20 the locking member having a surface that cooperates with a
surface on the first finger to produce a bias force on the first finger radially
inwardly relative to the central axis as the locking member is moved from the
22 first position into the second position,

24 wherein the locking member can be selectively placed and
frictionally maintained in each of the first and second positions.

24. The combination according to claim 25 wherein the second
2 end of the tubular fitting has a receptacle for the externally threaded connecting
port and with the locking member in the first position, the first finger is biased
4 radially outwardly so as not to engage the threads on the externally threaded
connecting port as the externally threaded connecting port is directed axially
6 relative to and into the receptacle in the second end of the tubular fitting.

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25. The combination according to claim 23 wherein the first
2 finger is folded to define the prong.

26. The combination according to claim 24 wherein the first
2 finger is folded at the free end of the first finger.

27. The combination according to claim 23 wherein the fingers in
2 the plurality of fingers have substantially the same configuration as the first
finger.

28. The combination according to claim 23 wherein the prong
2 projects in a line and is flexible relative to the first finger to change the
orientation of the line relative to the first finger.

29. The combination according to claim 23 wherein with the
2 locking in the second position, the first finger is biased so that the prong
4 resides in radially overlapping relationship with one of the axially oppositely
facing thread surfaces.

30. In combination:

- 2 a) an externally threaded connecting port having threads with an external diameter,
- 4 the threads further having axially oppositely facing surfaces; and
- 6 b) an assembly for connecting a cable to the externally threaded connecting port, the connecting assembly comprising:
 - 8 a tubular fitting having a central axis and axially spaced first and second ends,
 - 10 the first end adapted to receive a cable,
 - 12 the second end defining a receptacle to receive the externally threaded connecting port and adapted to engage the externally threaded connecting port to secure the connecting assembly to the externally threaded connecting port,
 - 14 the connecting assembly comprising a plurality of fingers projecting generally in a first axial direction,
 - 16 a first finger in the plurality of fingers having an axial length between axially spaced connected and free ends and a prong projecting generally oppositely to the first axial direction from a first axial location on the first finger,
 - 20 the first finger normally biased to a release position,

a locking member,

22 the connecting assembly further comprising means cooperating
between the locking member and at least the plurality of fingers for (a) allowing
24 the locking member to be placed and frictionally maintained in the first and
second positions, (b) biasing the first finger into a locked position wherein the
26 prong extends into radially overlapping relationship with one of the axially
oppositely facing thread surfaces, with the locking member in the second
28 position, and (c) allowing the first finger to assume the release position wherein
the prong resides outside of the external diameter of the threads with the
30 locking member in the first position.

31. The combination according to claim 30 wherein the second

2 end of the tubular fitting has a receptacle for the externally threaded connecting
port and with the locking member in the first position, the first finger is biased
4 radially outwardly so as not to engage the threads on the externally threaded
connecting port as the externally threaded connecting port is directed axially
6 relative to and into the receptacle in the second end of the tubular fitting.

32. The combination according to claim 30 wherein the first
2 finger is folded to define the prong.

33. The combination according to claim 30 wherein the fingers in
2 the plurality of fingers have substantially the same configuration as the first
finger.

34. A method of connecting a cable to an externally threaded
2 connecting port having threads, the threads having an external diameter and
axially oppositely facing surfaces, the method comprising the steps of:
4 providing a connecting assembly comprising: a) a tubular fitting
having a central axis and axially spaced first and second ends; b) a plurality of
6 fingers projecting generally in a first axial direction so that the plurality of fingers
cooperatively defines a receptacle, a first finger in the plurality of fingers
8 having an axial length between axially spaced connected and free ends and a
prong projecting generally oppositely to the first axial direction from a first axial
10 location on the first finger, and c) a locking member that is movable relative to
the first finger between first and second positions;

12 moving the locking member into the first position so that the
locking member is frictionally maintained in the first position;

14 with the locking member in the first position directing the
externally threaded connecting port into the receptacle with the first finger in a

16 position so that the prong on the first finger does not engage the threads on the externally threaded connecting port;

18 with the externally threaded connecting port in the receptacle, moving the locking member from the first position towards the second position

20 and thereby causing the locking member to produce a force in the first finger that biases the first finger so as to situate the prong in radially overlapping

22 relationship with one of the axially oppositely facing thread surfaces so that the prong abuts to the one of the axially oppositely facing thread surfaces to

24 prevent separation of the externally threaded connecting port and connecting assembly by relative axially opposite movement; and

26 connecting a cable to the second end of the tubular fitting.

35. The method of connecting a cable to an externally threaded connecting port according to claim 34 wherein the step of moving the locking member comprises causing the locking member to produce the force from a location between the connecting and free ends of the first finger.

36. The method of connecting a cable to an externally threaded connecting port according to claim 34 wherein the step of providing a connecting assembly comprises providing a connecting assembly with a

4 plurality of fingers that are substantially the same as the first finger and which
cooperate with the locking member in substantially the same manner as the
6 locking member cooperates with the first finger.

37. The method of connecting a cable to an externally threaded
2 connecting port according to claim 34 wherein the step of moving the locking
member comprises causing the locking member to produce a force that
4 repositions the prong relative to the first finger.